NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT STATEMENT OF BASIS

Permittee's Name: Satala Power Plant
American Samoa Power Authority

Mailing Address: P.O. Box PPB
Pago Pago, American Samoa 96799

Plant Location: Pago Pago

Contact Person(s): Abe Malae
Executive Director

NPDES Permit No.: AS0020044

I. Status of Permit

NPDES permit AS0020044 for stormwater discharges from the Satala power plant became effective on April 15, 1997 and expired on April 14, 2002. American Samoa Power Authority (ASPA) submitted a renewal application dated December 15, 2002.

II. General Facility Information

ASPA operates a power generating facility utilizing a diesel generator with an installed capacity of 29 MW. The facility does not discharge process wastewater.

The facility covers approximately 13,000 square feet of impervious area. Materials stored on site include diesel fuel, lubricating oil, and used oil. Stormwater from the plant site is collected in surface drains and routed to a sample tanks operating as an oil water separator. Stormwater is discharged through Outfall 001 to a drainage ditch which flows to Pago Pago harbor.

III. Receiving Water

Pago Pago Harbor has been designated by the American Samoa Government to be developed into a transhipment center for the South Pacific. Recognizing its unique position as an embayment where water quality has been degraded from the natural condition, the Environmental Quality Commission (EQC) of the American Samoa Government has established the following protected uses for Pago Pago Harbor:

1) Recreational and subsistence fishing;
2) Boat launching ramps and designated mooring areas;
3) Subsistence food gathering;
4) Aesthetic enjoyment;
5) Whole and limited body-contact recreation;
6) Support and propagation of marine life;
7) Industrial water supply;
8) Mari-culture development;
9) Normal harbor activities, e.g., ship movements, docking, loading and unloading; and
10) Scientific investigations.

In order to protect the beneficial uses of surface waters, the American Samoa Government has adopted water quality standards consisting of designated uses and criteria for the protection of those uses.

IV. Description of Water Sources, Processes and Discharges

The permit application indicates that on the West Side of the facility there is no storage of fuel, lube oil, or chemicals, and that no mechanical or electrical work is performed here. Therefore, the stormwater runoff from the West Side of the facility drains directly through pipes to Pago Pago harbor and is not treated through the oil water separator.

The permit application indicates that the following wastewaters flow to the oil water separator and are discharged through Outfall 001 into a ditch that flows to the harbor:

- most runoff from the East and Central portions of the facility,
- oily wastewater from the power plant basement,
- secondary containment areas for the diesel fuel trucks, used oil tanks, fuel truck unloading bay, and lube oil iso-container tanks.

The permit application indicates that "most" stormwater from process facilities is only discharged through Outfall 001, and that the designated NPDES Outfall 002 contained in the previous permit is no longer necessary.

Stormwater from the steep areas above the site are routed around the facility via concrete lined drainage channels. Most rainwater from the roofs of the power plant and offices are sent directly into road drains that flow to the harbor.

V. Justification for Proposed Effluent Limitations and Monitoring Requirements

A. American Samoa Water Quality Standards

In accordance with 24.0206(c)(2)(B) of the American Samoa Water Quality Standards,

prohibited uses of Pago Pago Harbor include but are not limited to:

1) dumping or discharge of solid waste;

2) dredging and filling activities; except as approved by the EQC in accordance with the Environmental Quality Act (Title 24, ASCA);

3) hazardous and radioactive waste discharges; and

4) discharge of oil sludge, oil refuse, fuel oil, or bilge water, or any other wastewater from any vessel or unpermitted shoreside facility (20.1714 ASCA).

Due to the lack of a dilution model for Pago Pago Harbor and the variability of associated storm water runoff flows, the water quality standards listed above will be administered at the point of discharge to the Harbor.

In addition, as contained in Section 24.0208 of the American Samoa Water Quality Standards, the following prohibitions are applicable to the Permittee's discharge:

1) They shall be substantially free from materials attributable to sewage, industrial wastes, or other activities of man that will produce objectionable color, odor, or taste, either of itself or in combinations, or in the biota.

2) They shall be substantially free from visible floating materials, grease, oil, scum, foam, and other floating material attributable to sewage, industrial wastes, or other activities of man.

3) They shall be substantially free from materials attributable to sewage, industrial wastes, or other activities of man that will produce visible turbidity or settle to form objectionable deposits.

4) They shall be substantially free from substances and conditions or combinations thereof attributable to sewage, industrial wastes or other activities of man which may be toxic to humans, other animals, plants, and aquatic life or produce undesirable aquatic life.

The above standards and prohibitions were not included in the previous permit. Since these requirements are specifically for Pago Pago Harbor and general waters of American Samoa, and due to the nature of the activities conducted at the facility, they will be incorporated into this permit.

B. Pollutants of Concern

Based upon DMR data from 1997 to 2002, the concentrations listed below were observed at

the storm water outfalls.

	Max detected	Number of detects	Average concentration	Water Quality Standard[1]	
pH	6.28 - 8.6	NA	7.0	chronic	acute
TSS	502 mg/l	29 of 29	47 mg/l	-	-
Oil & Grease	501 mg/l	13 of 17	40 mg/l	-	-
Copper	750 ug/l	20 of 20	73 ug/l	3.7 ug/l	5.8 ug/l
Lead	70 ug/l	17 of 17	14 ug/l	8.5 ug/l	220 ug/l
Nickel	10 ug/l	5 of 17	3 ug/l	8.2 ug/l	75 ug/l
Zinc	1, 060 ug/l	17 of 17	225 ug/l	86 ug/l	95 ug/l

[1] as Total using standard saltwater conversion factors

Oil and Grease
The previous permit established a daily maximum limit for Oil and Grease of 20 mg/L. The permittee violated this standard in 7 out of 20 samples. The draft permit will retain the previous effluent limit of 20 mg/L. However, the frequency of monitoring will be increased to demonstrate compliance.

pH
The previous permit established a daily maximum limit for pH of 6.0 to 8.8. The permittee did not violate the standard for pH.

Copper
Concentrations of copper have been above the acute and chronic criteria for all 20 samples, and maximum concentration have been two orders of magnitude above water quality standards.

Lead
Concentration of lead have been above the acute criteria in 7 out of 17 samples.

Nickel
Concentration of nickel have been slightly above the acute criteria in 5 out of 17 samples.

Zinc
Concentrations of zinc have been above the acute and chronic criteria in 15 out of 17 samples, and maximum concentration have been 2 orders of magnitude above water quality standards.

Should any of the monitoring indicate that the discharge causes, has reasonable potential to cause,

or contributes to excursions above a state water quality criteria, the permit may be reopened for the imposition of additional water quality based effluent limitations and/or whole effluent toxicity limits in accordance with 24.0207(a)(8) of the American Samoa Water Quality Standards. Also, the permit may be modified, in accordance with the requirements set forth at 40 CFR '122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new state water quality standard applicable to effluent toxicity

Based on previous monitoring data for copper, lead, nickel and zinc that shows that the effluent has the reasonable potential to exceed water quality standards, the permit establishes effluent limitations for copper, lead, nickel, and zinc.

C. RECEIVING WATER AND SEDIMENT MONITORING

This permit does not require ambient water column or sediment monitoring at this time. Most shipyard permits do require sediment monitoring. However, in this case EPA has decided to wait until federal or local sediment criteria is adopted or until a harbor wide water quality study can be undertaken. At that time, this permit may be reopened for the imposition of ambient water and/or sediment monitoring requirements. High levels of metals (copper, arsenic, lead) have previously been found in sediment, fish tissue and the water column offshore of the railway as reported in:

Draft Report for Human Health Risk Assessment for Consumption of Fish and Shellfish Contaminated with Heavy Metals and Organochlorine Compounds in American Samoa, February 1994, and *A Preliminary Toxicity Study of Water, Sediment and Fish Tissues from Inner Pago Pago Harbor in American Samoa*, 1991.

VI. Pollution Prevention Plan

Based upon the Best Professional Judgement of the permit writer, the Permittee will be required to develop and implement a Storm Water Pollution Prevention Plan. This requirement is consistent with similar Best Management Practices (BMPs) required by industrial facilities. The development involves organizing a pollution prevention committee, identifying the sources of pollution, developing Best Management Practices (BMPs) both to control the sources and to treat the polluted storm water where practicable. The plan also requires employee training and weekly inspections. The BMPs are intended control and eliminate pathways from sources of pollution to the receiving media. Most can be immediately established with little or no engineering modifications to a facility. Consistent execution of the BMPs should result in a substantial reduction of pollutants entering Pago Pago Harbor. The Storm Water Pollution Prevention Plan submitted by the facility is an enforceable section of the NPDES permit.

The requirements for the Pollution Prevention Plan are largely the same as were contained in the previous permit.

VII. Written Comments

Persons desiring to comment upon, or object to the proposed action or request a public hearing pursuant to 40 CFR ' 124.11, should submit their comments or request in writing within thirty (30) days from the date of the Public Notice, by mail to the address shown below:

John Tinger
U.S. EPA (WTR-5)
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3518
Fax (415) 947-3545

VIII. Information and Copying

The Administrative Record, which contains the draft NPDES permit, the fact sheet, comments received, and other relevant documents, is available for review and may be obtained by calling or writing to the above address.

All comments or objections received within thirty (30) days from the date of the Public Notice, will be retained and considered in the formulation of the final determination regarding the permit issuance.

IX. Public Hearing

When public interest warrants, the Regional Administrator shall hold a public hearing and such notice of hearing shall be issued by public notice at least thirty (30) days prior to the hearing date. A request for a public hearing must be in writing and must also state the nature of the issues proposed to be raised in the hearing.

X. Threatened and Endangered Species

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat. An examination of the effect of this action on any listed or candidate species or their critical habitat is appropriate.

EPA has determined that issuance of the NPDES permit for stormwater discharges from the

Satala Power Plant will have no negative effect on species that are commonly affected by NPDES discharges.

In considering all information available, EPA concluded that a determination of NO EFFECT is appropriate for this federal action. A copy of the statement of basis and proposed permit were sent to the US Fish and Wildlife Services and the Arizona Game and Fish Department for review and comment during the 30-day public review period.

David Nichols (USNMFS), in a telephone conversation with Suesan Saucerman, USEPA, Region 9, (December 10, 2002) stated that the discharge to Pago Pago Harbor is not a critical habitat for endangered species and that compliance with the NPDES permit should not effect endangered species in Pago Pago Harbor. A letter dated December 10, 2002 from Margaret Akamine (NMFS) provided the details on the species listed and considered in the area and stated that there is no designated critical habitat in Pago Pago Harbour.

In a phone conversation (December 17, 2002) between Alan Everson, of the Essential Fisheries Habitat Division in NMFS, and Suesan Saucerman (USEPA), Everson imparted the information that there would be no effect on essential fish habitat because of the discharge in Pago Pago Harbour.

In a phone conversation (December 9, 2002) between US Fish and Wildlife Service Biologist, Holly Freifeld and Suesan Saucerman (USEPA) it was agreed upon that there would be no effect on species listed as endangered and threatened by USFWS that occur in Pago Pago Harbor. In a letter from USFWS dated December 13, 2002, details on listed and candidate species was provided by Paul Henson (Field Supervisor, USFWS). The letter also stated that there is no critical habitat designated for any listed species in American Samoa.

XI. Information Sources

While developing effluent limitations, monitoring requirements and special conditions for the draft permit, the following information sources were used:

1. NPDES Permit Application Form 1 and 2E, dated May 11, 2001.

2 . NPDES Permit Application Forms 2E and 2D, dated January 3, 2002.

3. Arizona Water Quality Standards for Surface Waters, Title 18, Chapter 11, Article 1. Adopted April 24, 1996.

4. 40 CFR Parts 122, 124, 125, and 423 *(Steam Electric Power Generating Point Source Category)*

5. Arizona's 1998 Water Quality Limited Waters List, Arizona Department of Environmental Quality, July 1998, EQR-98-8

6."Technical Support Document for Water Quality-based Toxics Control," EPA/502/2-90-001